

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date
26 May 2005 (26.05.2005)

PCT

(10) International Publication Number
WO 2005/047306 A3

- (51) International Patent Classification⁷: C12Q 1/68, 1/02, 1/34, C07K 14/00
- (21) International Application Number: PCT/US2004/036781
- (22) International Filing Date: 5 November 2004 (05.11.2004)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data: 60/518,385 7 November 2003 (07.11.2003) US
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- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

(88) Date of publication of the international search report:
24 November 2005

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

WO 2005/047306 A3

(54) Title: A PRION-LIKE FORM OF CPEB AND RELATED COMPOSITIONS AND METHODS

(57) Abstract: The present invention provides methods for determining whether an agent facilitates the conversion of a cytoplasmic polyadenylation element binding (CPEB) protein from its non-prion form to its prion form. This invention also provides methods for determining the presence and amount of the prion form of CPEB protein in a cell. This invention also provides methods for facilitating the conversion of a non-prion CPEB protein to its prion form. This invention also provides an isolated prion form cytoplasmic polyadenylation element binding (CPEB) protein and compositions comprising a therapeutically effective amount of an agent that facilitates the conversion of CPEB protein from its non-prion form to its prion form, and methods of making such compositions.